UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

JAN 30 2017

CERTIFIED MAIL – RETURN RECEIPT REQUESTED
Article Numbers: 7016 2070 0001 1397 3669

Lori Jiava, Town Supervisor
Wappingers Town Hall
P.O. Box 324
Wappingers, NY 12590-0324

Re: **Request for Information**
Docket No. CWA-IR-17-015
Compliance Evaluation Inspection Mid-Point Park WWTP
SPDES Permit No. NY0035637
September 2, 2016

Dear Ms. Jiava:

Please find enclosed a Request for Information ("RFI") letter, which the U.S. Environmental Protection Agency ("EPA") Region 2 is issuing to the Town of Wappingers ("Facility") pursuant to Section 308(a) of the Clean Water Act ("CWA"), 33 U.S.C. § 1318(a). The EPA is issuing the RFI to require representatives of the Facility to provide specific information regarding the wastewater treatment plant.

Section 308(a) of the CWA, 33 U.S.C. § 1318(a), provides that whenever it is necessary to carry out the objectives of the CWA, including determining whether or not a person/agency is in violation of Section 301 of the CWA, 33 U.S.C. § 1311, the EPA shall require the submission of any information reasonably necessary to make such a determination. Under the authority of Section 308 of the CWA, EPA may require the submission of information necessary to assess the compliance status of any facility/site and its related appurtenances. Therefore, pursuant to the authority vested in the Administrator of EPA under Section 308(a) of the CWA, 33 U.S.C. § 1318(a), which authority has been duly redelegated to the undersigned, it is hereby requested that you provide the information requested in the "REQUEST FOR INFORMATION" section below.

On September 2, 2016, representatives of the New York State Department of Environmental Conservation ("NYSDEC") and the EPA conducted a Compliance Evaluation Inspection at the subject wastewater treatment plant to evaluate compliance with its NYSDEC issued State Pollutant Discharge Elimination System ("SPDES") Permit NY0035637. The enclosed inspection report lists Potential Non-Compliance items that must be corrected to ensure compliance with the NYSDEC issued SPDES Permit and CWA. The inspection report also contains Areas of Concern that should be improved for better operations and recordkeeping at the facility.

REQUEST FOR INFORMATION

The Facility is hereby required, pursuant to Section 308(a) of the Clean Water Act, 33 U.S.C. § 1318(a), to submit the following documents and requested information regarding the Midpoint Park WWTP.

1. **Within forty-five (45) calendar days of receipt** of this RFI, submit a written response with the actions (including a schedule) that are being taken or will be taken to address each of the Potential Non-Compliance items and Areas of Concern identified in the enclosed inspection report from the joint EPA and NYSDEC September 2, 2016, Compliance Evaluation Inspection.

2. On the 28 day following each of the next 3 full months from receipt of this RFI submit the Discharge Monitoring Report ("DMR") along with all laboratory results for Total Residual Chlorine taken at the specified monitoring point in the Permit for that month.

CERTIFICATION

Any documents to be submitted as part of this RFI shall be sent by certified mail or its equivalent and shall be signed by an authorized representative of the respective entity (*see* 40 C.F.R. § 122.22), and shall include the following certification:

> "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

All information required to be submitted pursuant to this Request for Information shall be sent by certified mail or its equivalent to the following addresses:

Justine Modigliani, Chief
Compliance Section
Water Compliance Branch
Division of Enforcement and Compliance Assistance
290 Broadway, 20th Floor
New York, NY 10007-1866

Joseph DiMura, P.E., Director
Bureau of Water Compliance Programs
Division of Water, NYSDEC
625 Broadway
Albany, NY 12233-3506

Should you have any questions regarding this request, feel free to have your staff contact Justine Modigliani, P.E., Chief, Compliance Section at (212) 637-4268.

Sincerely,

for Doughlas McKenna, Chief
Water Compliance Branch
Division of Enforcement and Compliance Assistance

Enclosures

cc: Mike Tremper, CAMO Pollution Control
Edward Hampston, NYSDEC via Email
Vijay Gandhi NYSDEC Region 3, Via Email

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NPDES	yr/mo/day	Inspection Type	Inspector	Fac Type
1 [ ] 2 [5]	3 [NY0035637] 11	12 [160902] 17	18 [C]	19 [R]	20 [1]

Remarks

21 [ ] 66

Inspection Work Days	Facility Self-Monitoring Evaluation Rating	BI	QA	Reserved
67 [ ] [1] 69	70 [ ]	71 [ ]	72 [ ]	73 [ ] 74 75 [ ] 80

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*	Entry Time/Date	Permit Effective Date
Midpoint Park SD WWTP (Royal Ridge), at or near 91 Martin Drive, Wappingers NY	09/02/16, 9:10AM	11/1/12
	Exit Time/Date	Permit Expiration Date
	Approx 1pm	10/31/17

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

Mike Pilon, Operator, CAMO Pollution Control, Inc. (845)207-2746
Michael P. Tremper, Chief Operator, CAMO, 845-463-7310

Other Facility Data *(e.g., SIC NAICS, and other descriptive information)*

SIC 4952

NYSDEC Region 3 Inspector Vijay Gandhi 845-256-3147
Gandhi, Vijay (DEC)
<vijay.gandhi@dec.ny.gov>

Current SPDES Permit was initially issued in 11/1/87 and this same permit continued through present.

Name, Address of Responsible Official/Title/Phone and Fax Number

Lori Jiava, Town Supervisor, Wappingers Town Hall, P.O. Box 324, Wappingers, NY, 12590-0324

Contacted: [ ] Yes [✓] No

Section C: Areas Evaluated During Inspection *(Check only those areas evaluated)*

[✓] Permit	[✓] Self-Monitoring Program	[ ] Pretreatment	[ ] MS4
[✓] **Records/Reports**	[✓] Compliance Schedules	[ ] Pollution Prevention	
[✓] Facility Site Review	[✓] Laboratory	[✓] Storm Water	
[✓] Effluent/Receiving Waters	[✓] Operations & Maintenance	[ ] Combined Sewer Overflow	
[✓] Flow Measurement	[✓] Sludge Handling/Disposal	[✓] Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments

(Attach additional sheets of narrative and checklists, including Single Event Violation codes, as necessary)

SEV Codes	SEV Description
A 0 0 1 2	Numeric Effluent Limitation Violation (Flow Rate)

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Murray Lantner, Env. Eng.	EPA/DECA-WCB/(212)6373976	1/18/17
Signature of Management Q A Reviewer	Agency/Office/Phone and Fax Numbers	Date
Justine Modigliani, P.E., Chief, Compliance Section	EPA/DECA-WCB/(212)-637-4268	1/24/17

INSTRUCTIONS

Section A: National Data System Coding *(i.e., PCS)*

Column 1: Transaction Code: Use N, C, or D for New, Change, or Delete. All inspections will be *new* unless there is an error in the data entered.

Columns 3-11: NPDES Permit No. Enter the facility's NPDES permit number - third character in permit number indicates permit type *for U=unpermitted,* G=general permit, etc.. *(Use the Remarks columns to record the State permit number, if necessary.)*

Columns 12-17: Inspection Date. Insert the date entry was made into the facility. Use the year/month/day format (e.g., 04/10/01 = October 01, 2004).

Column 18: Inspection Type*. Use one of the codes listed below to describe the type of inspection:

A	Performance Audit	U	IU Inspection with Pretreatment Audit	!	Pretreatment Compliance (Oversight)
B	Compliance Biomonitoring	X	Toxics Inspection	@	Follow-up (enforcement)
C	Compliance Evaluation (non-sampling)	Z	Sludge - Biosolids	{	Storm Water-Construction-Sampling
D	Diagnostic	#	Combined Sewer Overflow-Sampling	}	Storm Water-Construction-Non-Sampling
F	Pretreatment (Follow-up)	$	Combined Sewer Overflow-Non-Sampling	:	Storm Water-Non-Construction-Sampling
G	Pretreatment (Audit)	+	Sanitary Sewer Overflow-Sampling	~	Storm Water-Non-Construction-Non-Sampling
I	Industrial User (IU) Inspection	&	Sanitary Sewer Overflow-Non-Sampling	<	Storm Water-MS4-Sampling
J	Complaints	\	CAFO-Sampling	-	Storm Water-MS4-Non-Sampling
M	Multimedia	=	CAFO-Non-Sampling	>	Storm Water-MS4-Audit
N	Spill	2	IU Sampling Inspection		
O	Compliance Evaluation (Oversight)	3	IU Non-Sampling Inspection		
P	Pretreatment Compliance Inspection	4	IU Toxics Inspection		
R	Reconnaissance	5	IU Sampling Inspection with Pretreatment		
S	Compliance Sampling	6	IU Non-Sampling Inspection with Pretreatment		
		7	IU Toxics with Pretreatment		

Column 19: Inspector Code. Use one of the codes listed below to describe the *lead agency* in the inspection.

A — State (Contractor)
B ---- EPA (Contractor)
E — Corps of Engineers
J — Joint EPA/State Inspectors—EPA Lead
L ---- Local Health Department (State)
N — NEIC Inspectors
O— Other Inspectors, Federal/EPA (Specify in Remarks columns)
P— Other Inspectors, State (Specify in Remarks columns)
R — EPA Regional Inspector
S — State Inspector
T — Joint State/EPA Inspectors—State lead

Column 20: Facility Type. Use one of the codes below to describe the facility.

1 — Municipal. Publicly Owned Treatment Works (POTWs) with 1987 Standard Industrial Code (SIC) 4952.
2 — Industrial. Other than municipal, agricultural, and Federal facilities.
3 — Agricultural. Facilities classified with 1987 SIC 0111 to 0971.
4 — Federal. Facilities identified as Federal by the EPA Regional Office.
5 — Oil & Gas. Facilities classified with 1987 SIC 1311 to 1389.

Columns 21-66: Remarks. These columns are reserved for remarks at the discretion of the Region.

Columns 67-69: Inspection Work Days. Estimate the total work effort (to the nearest 0.1 work day), up to 99.9 days, that were used to complete the inspection and submit a QA reviewed report of findings. This estimate includes the accumulative effort of all participating inspectors; any effort for laboratory analyses, testing, and remote sensing; and the billed payroll time for travel and pre and post inspection preparation. This estimate does not require detailed documentation.

Column 70: Facility Evaluation Rating. Use information gathered during the inspection (regardless of inspection type) to evaluate the quality of the facility self-monitoring program. Grade the program using a scale of 1 to 5 with a score of 5 being used for very reliable self-monitoring programs, 3 being satisfactory, and 1 being used for very unreliable programs.

Column 71: Biomonitoring Information. Enter D for static testing. Enter F for flow through testing. Enter N for no biomonitoring.

Column 72: Quality Assurance Data Inspection. Enter Q if the inspection was conducted as followup on quality assurance sample results. Enter N otherwise.

Columns 73-80: These columns are reserved for regionally defined information.

Section B: Facility Data

This section is self-explanatory except for "Other Facility Data," which may include new information not in the permit or PCS (e.g., new outfalls, names of receiving waters, new ownership, other updates to the record, SIC/NAICS Codes, Latitude/Longitude).

Section C: Areas Evaluated During Inspection

Check only those areas evaluated by marking the appropriate box. Use Section D and additional sheets as necessary. Support the findings, as necessary, in a brief narrative report. Use the headings given on the report form (e.g., Permit, Records/Reports) when discussing the areas evaluated during the inspection.

Section D: Summary of Findings/Comments

Briefly summarize the inspection findings. This summary should abstract the pertinent inspection findings, not replace the narrative report. Reference a list of attachments, such as completed checklists taken from the NPDES Compliance Inspection Manuals and pretreatment guidance documents, including effluent data when sampling has been done. Use extra sheets as necessary.

*Footnote: In addition to the inspection types listed above under column 18, a state may continue to use the following wet weather and CAFO inspection types until the state is brought into ICIS-NPDES: K: CAFO, V: SSO, Y: CSO, W: Storm Water 9: MS4. States may also use the new wet weather, CAFO and MS4 inspections types shown in column 18 of this form. The EPA regions are required to use the new wet weather, CAFO, and MS4 inspection types for inspections with an inspection date (DTIN) on or after July 1, 2005.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2, DECA-WCB
20th Floor, 290 Broadway, New York, NY 10007

Compliance Evaluation Inspection: Midpoint Park SD WWTP Royal Ridge, Wappingers, NY	
Inspection Date: September 2, 2016 **Inspection Time:** 9:10 AM to 1 PM	**EPA Representative(s):** Murray Lantner, P.E. Environmental Engineer, USEPA Region 2, (212) 637-3976 1/17/17 **NYSDEC Representative(s):** NYSDEC Region 3 Inspector Vijay Gandhi (845)-256-3147, vijay.gandhi@dec.ny.gov
On-Site Representative: Mike Pilon, Operator, CAMO Pollution Control, Inc. (845) 702-2746 Michael P. Tremper, Chief Operator, CAMO, 845-463-7310	
Site Information: Located at 91 Martin Drive, Wappingers, NY Lat./ Long: 41.615997, -73.862823 SPDES/ICIS No. NY0035637 **SIC Code:** 4952	

I. INTRODUCTION

On September 2, 2016, representatives of the United States Environmental Protection Agency ("EPA") and New York State Department of Environmental Conservation ("NYSDEC" or "DEC") conducted a Compliance Evaluation Inspection ("CEI" or "Inspection") at the Midpoint Park Sanitary District Wastewater Treatment Plant in Wappingers, NY. The objective of this visit was to determine compliance with NYSDEC State Pollutant Discharge Elimination System (SPDES)Permit NY0035637 ("Permit") for discharges from its Sanitary Wastewater Treatment Plant ("WWTP") into an unnamed tributary of Wappingers Creek. The WWTP treats the sanitary flow from approximately 153 homes and discharges approximately 60,000 gpd on dry weather days and about 90,000 gpd on wet weather days. The facility consists an influent pump station, aeration, sludge holding tank, final clarifier, sand bed and chlorine contact. Sludge is pumped out of sludge holding tank and sent off-site by TAM to PVSC or Beacon Wastewater Treatment Plant.

There was no precipitation during the inspection, but it had rained earlier in the day. Homeowners were said to pay approximately $700 per year in sewer fees. The plant operator from CAMO

Pollution control is on-site approximately 3 to 4 hours per day (on weekdays) and a weekend operator comes for shorter hours.

The NYSDEC and the Town of Wappingers entered into an Order on Consent R3-20150210-16 on or about April 2016 to achieve compliance with plant flow rate limitations. An accompanying compliance schedule provided to EPA by NYSDEC pior to the inspection dated January 2016 (Attachment 2).

Upon entering the site, EPA inspector Murray Lantner presented credentials to Mr. Pilon. After a brief introduction we began the site walkthrough with Mr. Tremper and Pilon, followed by a review of records.

II. FINDINGS & OBSERVATIONS

Below identifies Potential Noncompliance Items, Areas of Concern and other Findings during the inspection.

A. Potential Noncompliance Items

1. As shown in the table below, based on a data retrieval from EPA's ECHO database the following excursions from the effluent limitations in the SPDES Permit have taken place. NYSDEC's Order on Consent R3-20150210-16 (April 2016) was issued to address the flow rate exceedances. During the inspection EPA, NYSDEC and CAMO representatives reviewed the schedule in the NYSDEC Order on Consent (See Attachment 2). The final compliance date in the Schedule for Implementation in the Flow Management Plan, slip-lining 1650 feet of pipe by June 2017 is expected to be met. Please provide an update and status of this project.

Midpoint Park WWTP Table of Exceedances based EPA ECHO Database for the period Nov. 2013 to Nov. 2016, at Outfall 001 - NY0035637

Monitoring Period End Date	Parameter	limit_unit_desc	Daily =1, Monthly =30	Permit Limit	Reported Level on DMR
11/30/2013	Solids, total suspended	lb/d	30	2.497	8
11/30/2013	Solids, total suspended	mg/L	30	10	11
12/31/2013	Flow Rate	MGD	30	0.066	0.085
1/31/2014	Flow Rate	MGD	30	0.066	0.102
2/28/2014	Flow Rate	MGD	30	0.066	0.081
3/31/2014	Flow Rate	MGD	30	0.066	0.123
4/30/2014	Flow Rate	MGD	30	0.066	0.119
5/31/2014	Flow Rate	MGD	30	0.066	0.104

6/30/2014	Flow Rate	MGD	30	0.066	0.072
7/31/2014	Flow Rate	MGD	30	0.066	0.082
12/31/2014	Flow Rate	MGD	30	0.066	0.1
1/31/2015	Flow Rate	MGD	30	0.066	0.079
3/31/2015	Flow Rate	MGD	30	0.066	0.12
4/30/2015	Flow Rate	MGD	30	0.066	0.112
5/31/2015	Flow Rate	MGD	30	0.066	0.07
2/29/2016	Flow Rate	MGD	30	0.066	0.08
3/31/2016	Flow Rate	MGD	30	0.066	0.071
4/30/16	Flow Rate	MGD	30	0.066	0.112
5/31/2016	Flow Rate	MGD	30	0.066	0.074
11/30/2016	Flow Rate	MGD	30	0.066	0.082

B. Areas of Concern

1. The current Permit (originally effective in November1987 – nearly 30 years ago):

   a. specifies that total residual chlorine in the chlorine contact chamber must be maintained between 0.5 and 2.0 mg/l. The facility does not have effluent total residual chlorine limits in its permit. For the period October 2013 to November 2015, based upon the EPA ECHO database, the facility reported a monthly maximum total residual chlorine concentration of 2 mg/l for each month. The Facility discharges approximately 60,000 gpd during dry weather to an unnamed tributary of Wappingers Creek, which the Permit lists as a Class B Stream. Current Water Quality Standards in 6 NYCRR Part 703.5 are 5 ug/l for total residual chlorine for class B Streams. Therefore, the Facility's total residual chlorine discharges appear to be more than 2 orders of magnitude above the water quality standards. Lab records reviewed on-site also showed instances when the total residual chlorine concentrations exceeded 2.0 mg/l in the chlorine contact tank. NYSDEC Permitting personnel, Shayne Mitchell in Albany, has been notified about permit limit/water quality standard issue related to total residual chlorine. EPA recommends that NYSDEC conduct a full review of this approximately 30 year old Permit and reissue a Permit reflective of current Water Quality Standards. NYSDEC said that they were considering full review of this Permit through its EBPS process.

   b. does not contain any limits for dissolved oxygen ("D.O.") and the Monthly Operations Report for May 2016 contain 8 days where thee effluent D.O. was below 4 mg/l and four days with D.O 2.0 mg/l and below. The April 2015 Monthly Operations Report showed two days with D.O. below 3.0 mg/l.

NYSDEC should also evaluate the need for D.O. limits while conducting a full permit review.

2. In May 2016 the DMR indicated that the maximum Influent Settleable Solids concentration was 220 ml/l, however the Monthly Facility Operation Report indicates that the maximum Settleable Solids concentration was 22.0 ml/l.

3. The chain of custody sheet from the Facility's contract lab, Environmental Labworks, for the TSS and BOD samples does not list that the samples were kept refrigerated or iced. 40 CFR Part 136 Table II specifies that BOD and TSS samples must be Cooled to ≤6 °C. The chain of custody needs to document whether these samples are cooled as required by 40 CFR Part 136.

4. Facility representatives indicated that they were conducting routine calibration of the pH meter with pH 4,7, and 10 buffers, however the calibrations were not being documented.

5. As shown in photos 602 and 603 there was some uneven flow over the final clarifier weirs. Clarifier weirs must be kept plum to ensure even flow and avoid short circuiting in the clarifiers. Facility representatives indicated that new plastic weirs were to be installed. What is the status of the installation of the new weirs?

6. As shown in photos 608 and 609 there is an overflow pipe at the top of the influent pump station wet well. Facility representatives said that they would receive an alarm prior to the overflow. Please identify where this overflow pipe leads to. If this pipe discharges to a surface waters then work with NYSDEC to Permit the overflow, report overflows or eliminate the overflow point. Also please ensure that the Facility complies with the NYSDEC Sewage Pollution Right to Know Act http://www.dec.ny.gov/chemical/90315.html

7. As shown in photos 604 to 607 sand bed there was uneven distribution of flow/ponding in Sand Bed No. 1. Sand bed No. 2 was said to not be in operation. Facility representatives said that they planned on getting new sand in 2017. What is status of placing new sand in beds.

8. The Facility should consider conducting checks of its Total Residual Chlorine meter against known colorimetric standards.

9. TSS and BOD loadings in pounds per day have limits to one decimal place, (e.g. monthly average TSS 5.5 lb/day), but the facility does not report a decimal (e.g. 1 lb/day in April 2015 DMR). The facility must report to 1 decimal place for TSS and BOD loadings.

2. **Other Obsservations**

1. The plant has an emergency generator.

2. There is an alarm system for the influent pump station (high level, low level, power failure). The alarm goes to the CAMO office and to an answering service.

3. There are 2 influent pumps and facility representatives indicated that 1 can handle the influent flow.

4. A new blower was installed recently.

III. CLOSING

A closing conference was held with Mr. Tremper and Mr. Pilon along with NYSDEC and EPA inspectors, findings identified at the time of the CEI were discussed.

IV. ATTACHMENTS

Attachment 1 – Photographs

Attachment 2 – Order on Consent Compliance Schedule

Attachment 1, Midpoint Park SD WWTP Royal Ridge, Wappingers, NY
September 2, 2016
Unedited Digital Photos Taken By Murray Lantner, P.E., Environmental Engineer, USEPA Region 2, DECA-WCB
With a Nikon Coolpix P510 Digital Camera

IMG_4602 – Final Clarifier – some uneven flow over the weirs

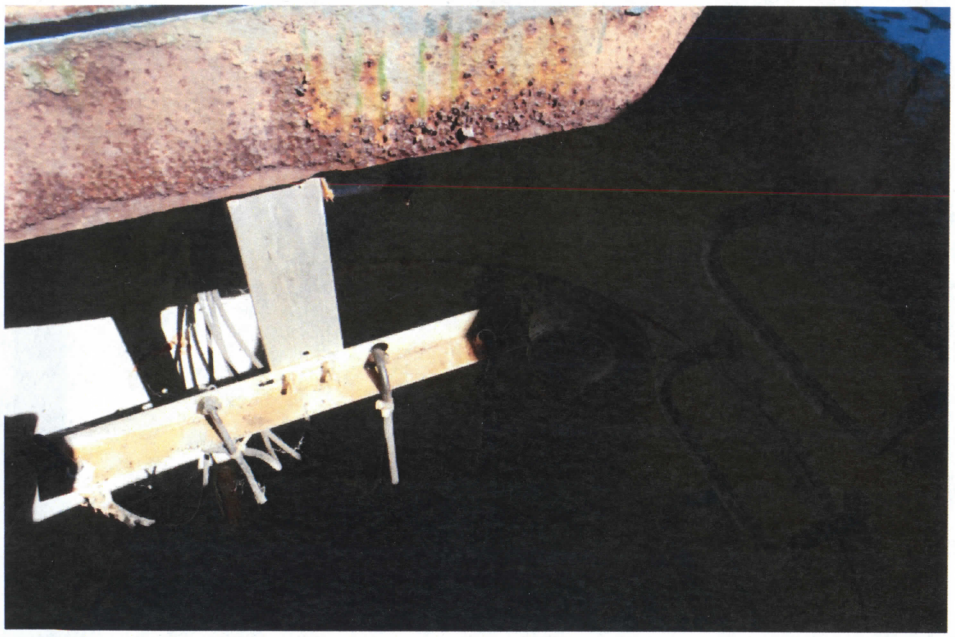
IMG_4603 - – Final Clarifier – some uneven flow over the weirs

IMG_4604 - – influent wet well with high level overflow pipe

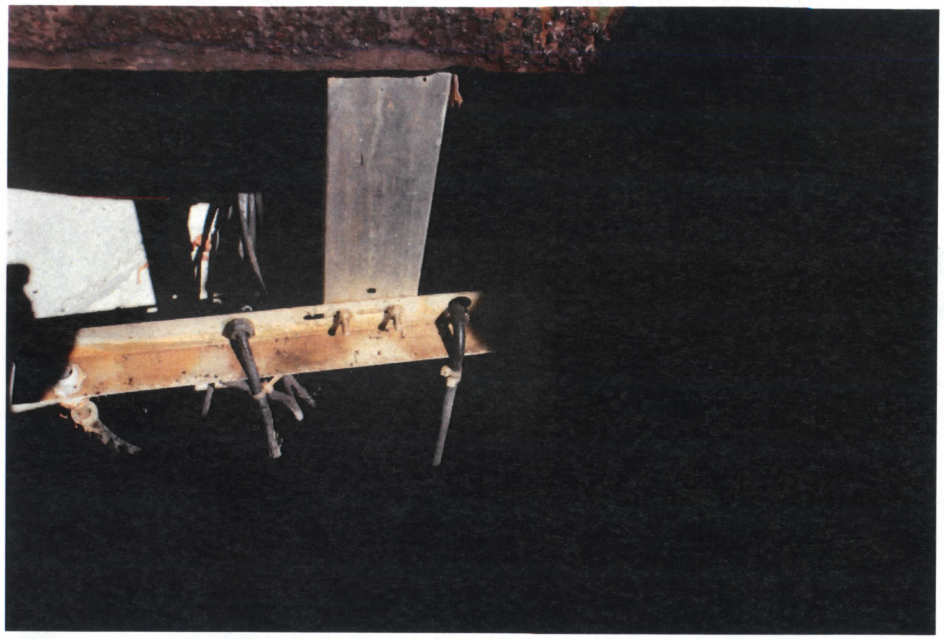
IMG_4605 - – influent wet well with high level overflow pipe

IMG_4606 – operating sand bed (No. 1) – uneven distribution

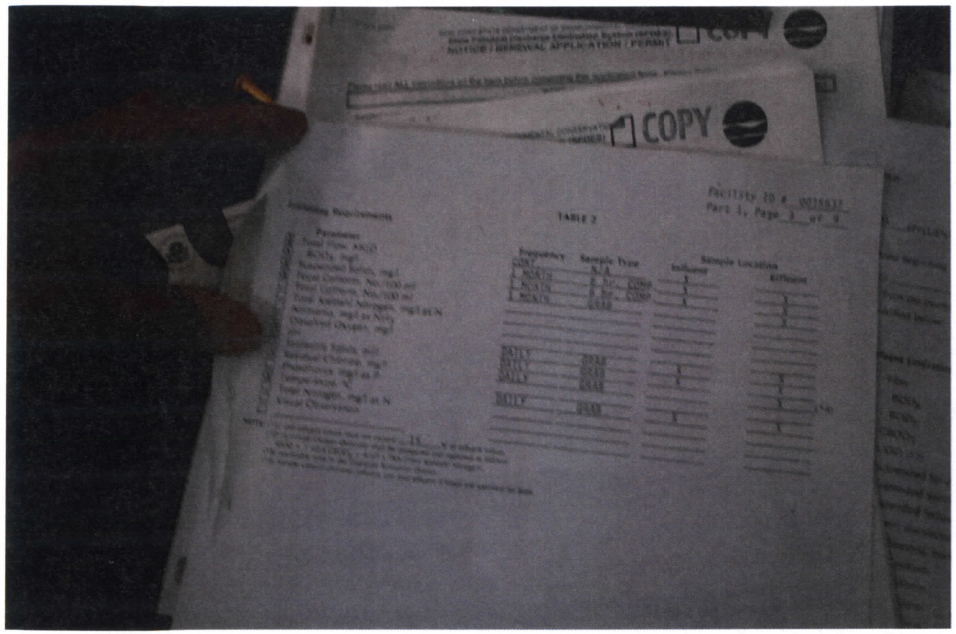
IMG_4607 - operating sand bed (No. 1) – uneven distribution



IMG_4608 – operating sand bed (No. 1) – uneven distribution



IMG_4609 - operating sand bed (No. 1) – uneven distribution



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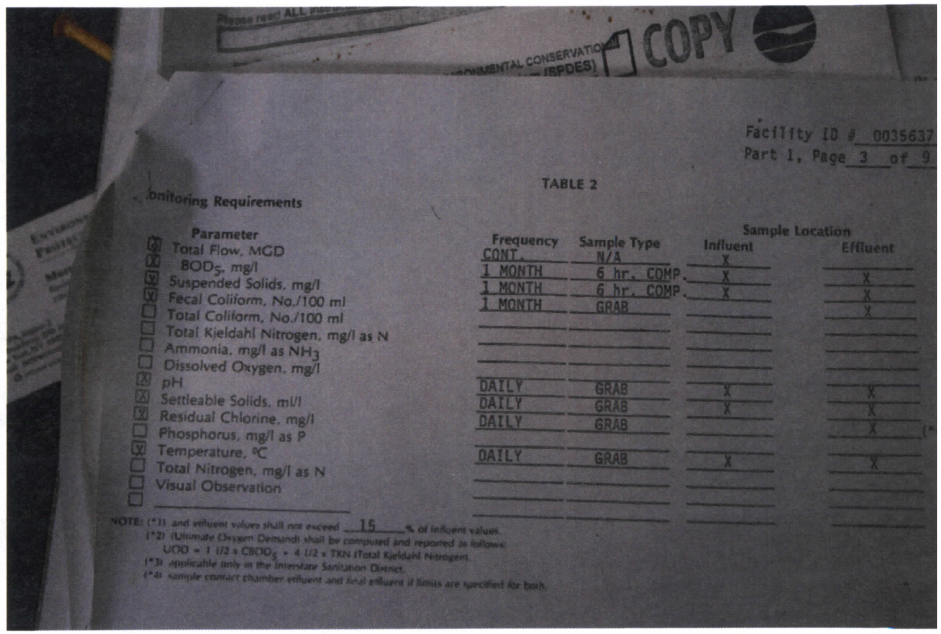
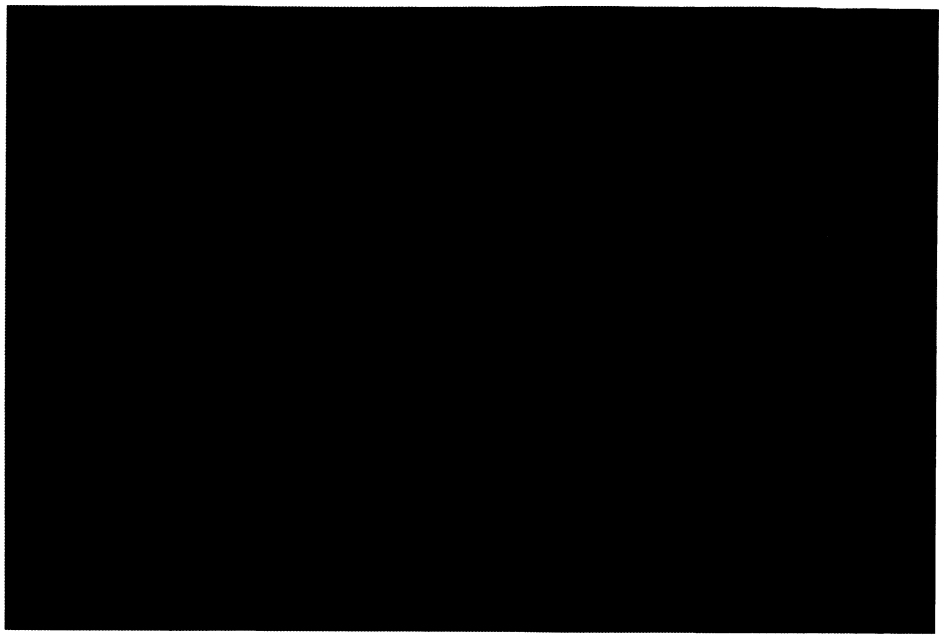


IMG_4611

IMG_4612



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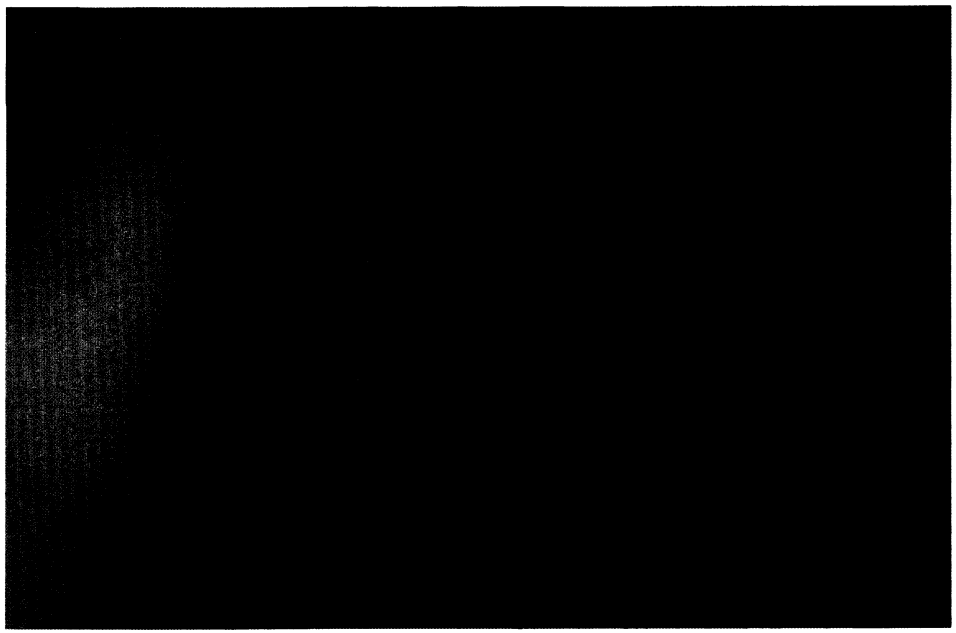

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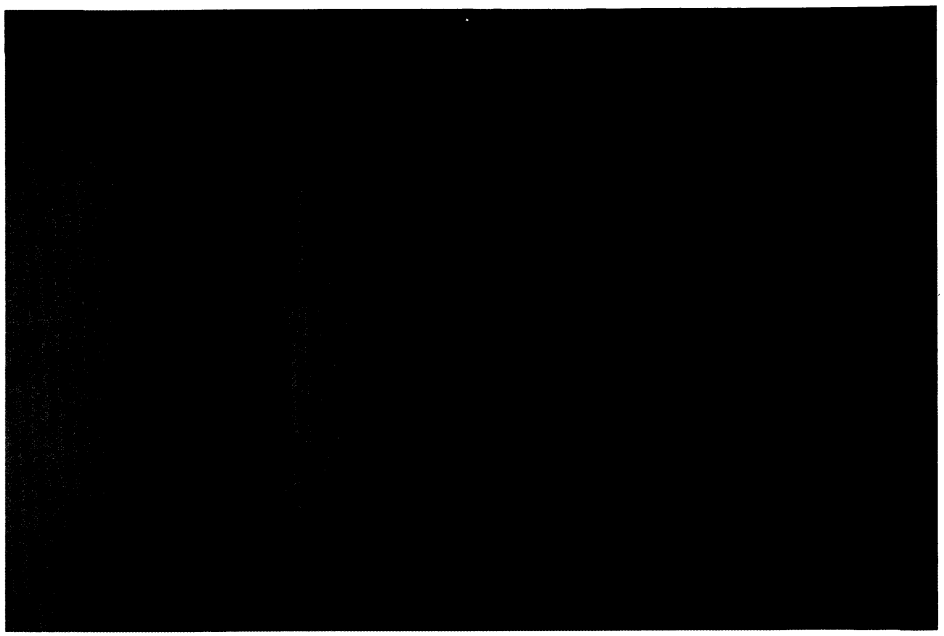

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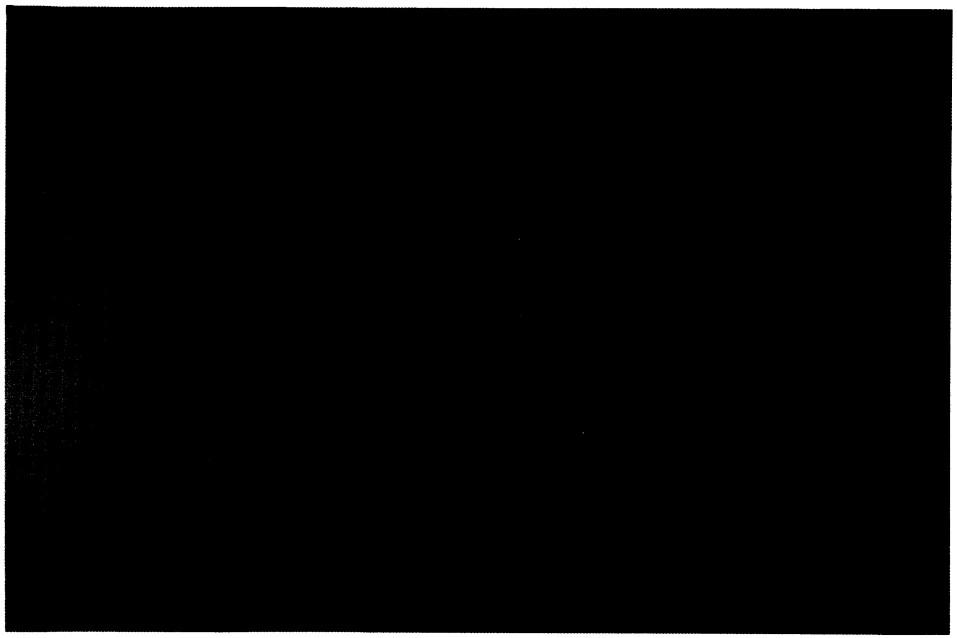

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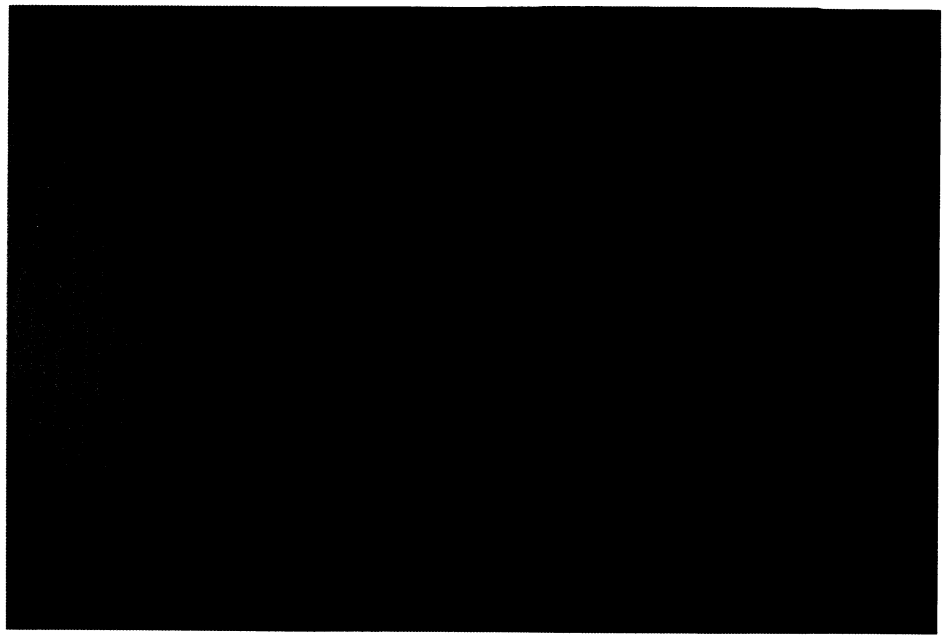
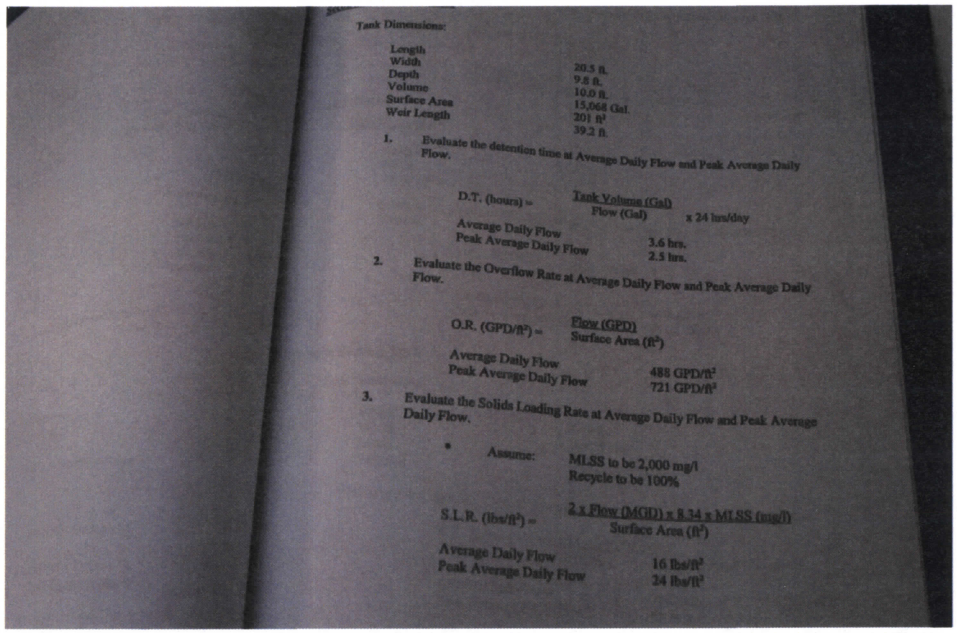


IMG_4617



Tank Dimensions:

Length	20.5 ft.
Width	9.8 ft.
Depth	10.0 ft.
Volume	15,068 Gal.
Surface Area	201 ft²
Weir Length	39.2 ft.

1. Evaluate the detention time at Average Daily Flow and Peak Average Daily Flow.

$$D.T.\ (hours) = \frac{\text{Tank Volume (Gal)}}{\text{Flow (Gal)}} \times 24\ hrs/day$$

Average Daily Flow	3.6 hrs.
Peak Average Daily Flow	2.5 hrs.

2. Evaluate the Overflow Rate at Average Daily Flow and Peak Average Daily Flow.

$$O.R.\ (GPD/ft^2) = \frac{\text{Flow (GPD)}}{\text{Surface Area (ft}^2\text{)}}$$

Average Daily Flow	488 GPD/ft²
Peak Average Daily Flow	721 GPD/ft²

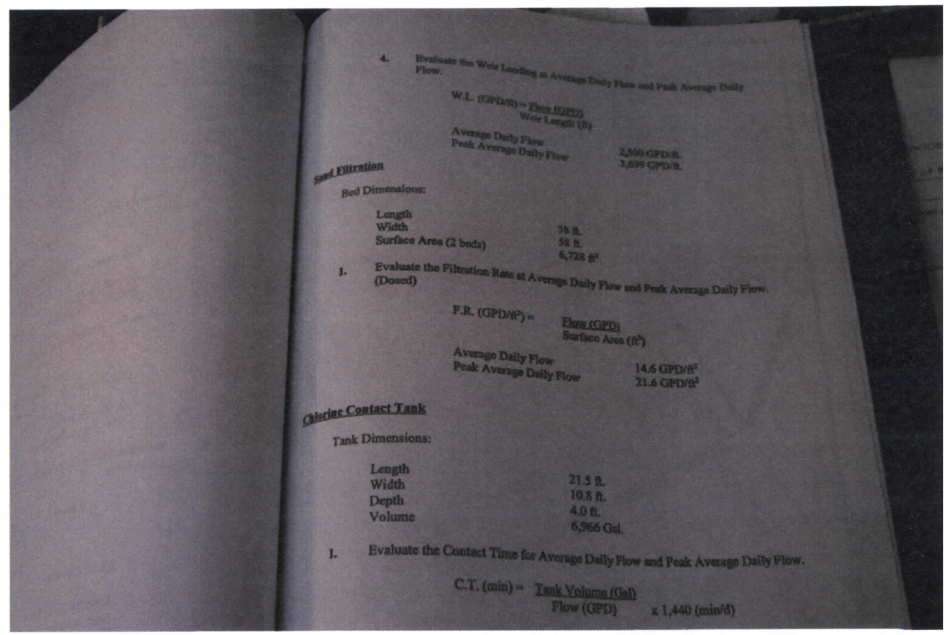
3. Evaluate the Solids Loading Rate at Average Daily Flow and Peak Average Daily Flow.

- Assume: MLSS to be 2,000 mg/l
  Recycle to be 100%

$$S.L.R.\ (lbs/ft^2) = \frac{2 \times \text{Flow (MGD)} \times 8.34 \times \text{MLSS (mg/l)}}{\text{Surface Area (ft}^2\text{)}}$$

Average Daily Flow	16 lbs/ft²
Peak Average Daily Flow	24 lbs/ft²

IMG_4618



4. Evaluate the Weir Loading at Average Daily Flow and Peak Average Daily Flow.

$$W.L.\ (GPD/ft) = \frac{\text{Flow (GPD)}}{\text{Weir Length (ft)}}$$

Average Daily Flow	2,500 GPD/ft.
Peak Average Daily Flow	3,609 GPD/ft.

Sand Filtration

Bed Dimensions:

Length	58 ft.
Width	58 ft.
Surface Area (2 beds)	6,728 ft²

1. Evaluate the Filtration Rate at Average Daily Flow and Peak Average Daily Flow. (Dosed)

$$F.R.\ (GPD/ft^2) = \frac{\text{Flow (GPD)}}{\text{Surface Area (ft}^2\text{)}}$$

Average Daily Flow	14.6 GPD/ft²
Peak Average Daily Flow	21.6 GPD/ft²

Chlorine Contact Tank

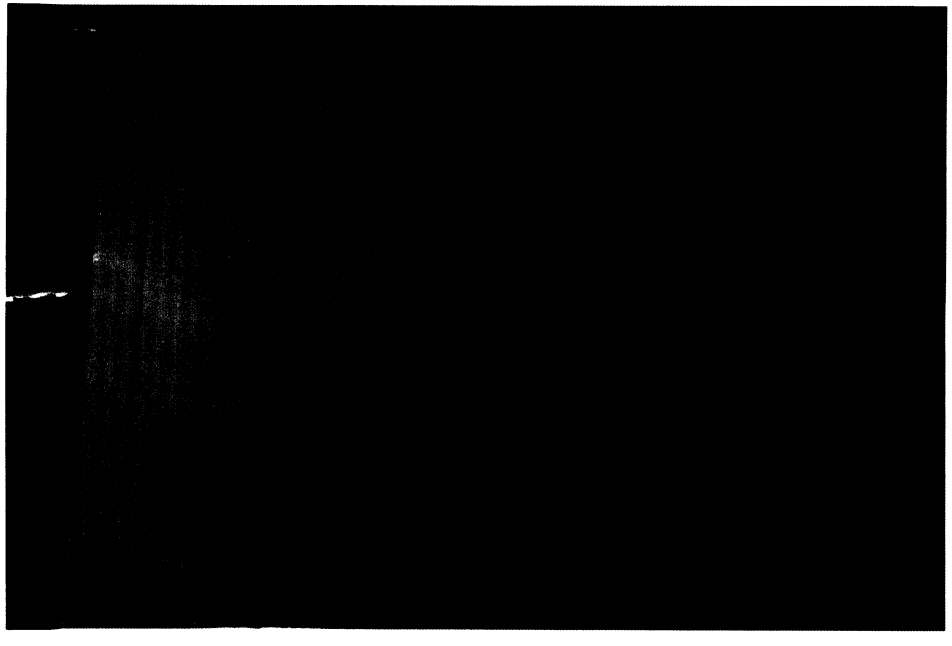
Tank Dimensions:

Length	21.5 ft.
Width	10.8 ft.
Depth	4.0 ft.
Volume	6,966 Gal.

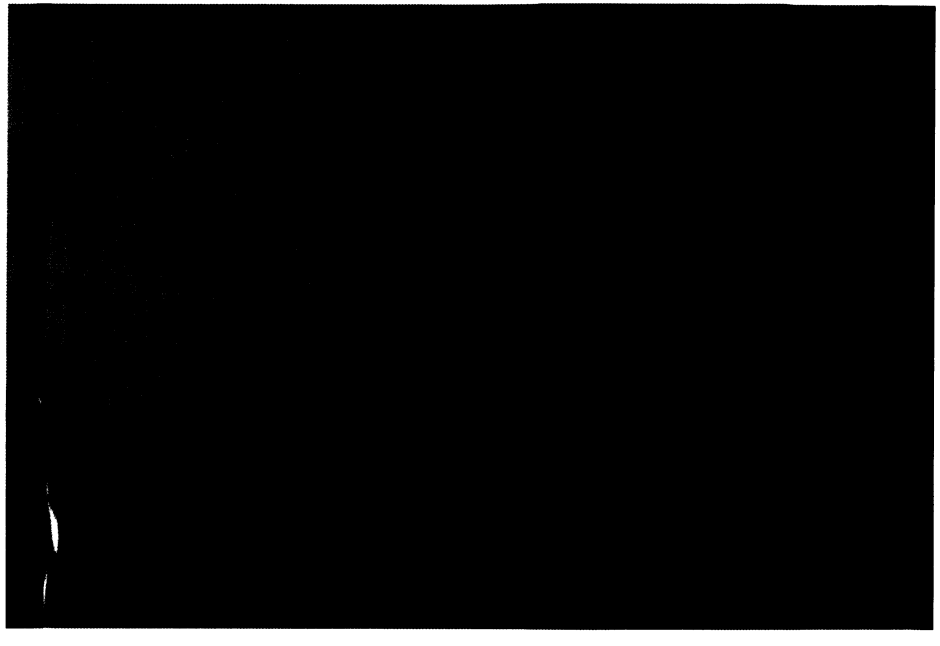
1. Evaluate the Contact Time for Average Daily Flow and Peak Average Daily Flow.

$$C.T.\ (min) = \frac{\text{Tank Volume (Gal)}}{\text{Flow (GPD)}} \times 1{,}440\ (min/d)$$

IMG_4619



IMG_4620



IMG_4621

Att. 2

II. FLOW MANAGEMENT PLAN

2.1 ORIGINAL FLOW MANAGEMENT PLAN

The original Flow Management Plan is included in Appendix A of this report and includes information on the Statement of Authority, Inventory of Applications to Connect, Flow Reduction Measures, Prevention of Future Sources of Infiltration, and Measures to Maximize Treatment Capacity.

2.2 PROPOSED REHABILITATION

The original Flow Management Plan proposed the replacement of approximately 1000' of truss pipe in easements along Gabriella drive, in order to reduce I&I. The location of these pipe replacements are shown as Replacement Segments 1 and 2 on the Survey Worksheet included in the back pocket of this report. Based upon research on other similar existing 8" sewer truss pipes, it was determined that sliplining of the existing piping would be possible, utilizing cured in place pipe (CIPP). This method is a trenchless pipe method that allows for rehabilitation without excavation or removal of the existing pipe. This method will significantly reduce any environmental impacts associated with the pipe rehabilitation, and can be done more quickly and at a lower cost that for pipe replacement. It is therefore proposed to slipline a total of approximately 1650', including the 1000' listed above along with the additional pipe segments 1-4 as shown on the map in the back pocket of this report. This would extend the rehabilitation to includes sections of Dorrett Lane. The work would also include include repairs to the existing manholes. Although the original pipe replacement was selected to reduce the most significant I&I based upon visual observations, sliplining of additional piping is expected to further reduce the total I&I of the collection system. During and after this replacement, flow monitoring along with visual observation of the system will continue.

2.3 CAPITAL IMPROVEMENTS

Sliplining of a portion of the collection system noted in Section 2.2 above would represent a capital improvement project. A map plan and report would be required to allow the Town of Wappinger to seek a bond for the design and construction of the improvements. Plans and specifications would have to be prepared and approved by NYSDEC and the Dutchess County Department Health. The revised estimated costs for this improvement are shown in Appendix B of this report.

2.4 SCHEDULE FOR IMPLEMENTATION

The proposed project modifications noted in this Addendum are subject to subsequent review and approval by the NYSDEC. A revised schedule has been proposed based upon the previously approved schedule prepared in September 2015. The proposed revised schedule is as shown in the following table:

February 2016	NYS DEC Approval of this Plan
March 2016	Preparation of Map, Plan & Report for District Creation
April 2016	• Town Board Acceptance of Map, Plan & Report; • Adopt Order Calling a Public Hearing on the Establishment of the District and the Improvements • Publish Notice of Public Hearing
May 2016	Public Hearing;
May –June 2016	Adopt Public Interest Order Subject to Permissive Referendum
July 2016	• 30 day Permissive Referendum Period • Prepare Application to Audit and Control for Approval of the District
***If Petition for Permissive Referendum is filed; remainder of schedule must be amended**	
August 2016	Assuming No Petition is Filed within 30 Days of the Adoption; • File Certified Copy of Public Interest Order in the Office of the County Clerk • Authorize Preparation of Plans and Specifications • Adopt a Town Board Resolution Authorizing filing of Application to Audit and Control – Complying with 3 NYCRR 85.3 (a)(1).
October-November 2016	Upon Approval of the Application by Audit and Control, • Adopt Final Order Establishing the District; • Adopt Bond Resolution Authorizing the Financing (subject to 30 day Estoppel Period); • File Final Order with Audit and Control and Record in the Office of the County Clerk
December 2016	Solicit Bids for Construction Contract
January 2016	Open Bids
February-March 2016	Award Construction Contract
April–June 2017	Construction Period
June 2017 – forward	Continue Flow Monitoring